



# Chesapeake Bay Program Analytical Segmentation Scheme

Revisions, Decisions and Rationales  
1983–2003

*2005 Addendum*

December 2005



# Chesapeake Bay Program Analytical Segmentation Scheme Revisions, Decisions and Rationales 1983–2003

*2005 Addendum*

*Prepared by the*  
Chesapeake Bay Program  
Monitoring and Analysis Subcommittee  
Tidal Monitoring and Analysis Workgroup  
Annapolis, Maryland

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## INTRODUCTION

In October 2004, the Chesapeake Bay Program released *Chesapeake Bay Program Analytical Segmentation Scheme: Revisions, Decisions, and Rationales 1983-2003* (U.S. Environmental Protection Agency 2004). The Segmentation Scheme Report provided documentation on the development of the spatial segmentation scheme of the Chesapeake Bay and tidal tributaries over the period from 1983 to 2003. Included within the Segmentation Scheme Report were tables describing the segment boundaries and split segment boundaries.

Segments have been defined as a way of grouping areas with similar natural characteristics. To date, segment boundaries have been defined based on selected ecological criteria. As a result, management and monitoring strategies can be defined for each segment as a whole. Additional information on the rationale for utilizing natural characteristics for delineating segments can be found in the Segmentation Scheme Report.

It has become increasingly apparent that the political jurisdictions charged with adopting water quality standards and developing management strategies for waters within their jurisdiction need well defined boundaries for the segments that lie *within their authority*. The 2003 revisions to the Chesapeake Bay Program segmentation scheme included multiple segments and split segments that crossed jurisdictional boundaries. This has led to some confusion as to the area within segments that are under the jurisdiction of the individual states and the District of Columbia. In an effort to address this concern, the Chesapeake Bay Program has revised the descriptions contained within the Segmentation Scheme to more fully reflect jurisdictional boundaries.

The purpose of this addendum is to provide an updated description of segments and split segments by jurisdiction. Each segment or split segment definition contains a series of points that are defined by both a set of latitude and longitude coordinates in decimal degrees and a textual narrative describing their location. The segment boundaries follow the shorelines between the geo-referenced boundary coordinates including within each segment, all tidally influenced waters.

In the original Segmentation Scheme Report, the segment and split segment descriptions were presented in Appendix B (split segments) and Appendix C (segments). For purposes of this Addendum, the updated segment descriptions are presented here as revisions to those appendices. Appendix A of the original Segmentation Scheme remains unchanged and therefore is not replicated here.



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## METHODS USED TO SUBDIVIDE SEGMENTS AND SPLIT SEGMENTS BY JURISDICTION

Originally, the impetus to divide certain Chesapeake Bay Program segments came from the desire of Maryland, Virginia and the District of Columbia to adopt submerged aquatic vegetation (SAV) restoration acreages in their respective water quality standards regulations for the tidal Potomac River. Each Chesapeake Bay Program segment was allocated acreage-specific SAV restoration goals, but the jurisdictions wanted to know what portions of those segments were legally responsible for. To allocate the area of individual Chesapeake Bay Program segments shared by two or more jurisdictions to the appropriate jurisdiction, it became necessary to apply state and District boundary data to be able to subdivide those segments. However, there were no legally recognized boundary data for the tidal Potomac River or even one common boundary dataset that all of the jurisdictions were using. An attempt was made to create a jurisdictional boundary file for the tidal Potomac River that Maryland, Virginia and the District of Columbia could agree upon.

After examining several different digital boundary files, it was determined that the best boundary along the Virginia shoreline was one produced by the Virginia Department of Conservation and Recreation (VA DCR). The VA DCR boundary was mostly based on the state boundaries appearing on digital 1:24000 scale quad sheets (digital raster graphics, or DRGs). The Maryland-Virginia state boundary delineated on the quad sheets appears to be based on the Mathews-Nelson Survey of 1927, which used the legally defined boundary of the low-water mark on the Virginia side of the river, except where embayments were crossed from one point on land to another point on land. However, shorelines can change in almost 80 years, either through natural or anthropogenic influences, which may partially account for discrepancies between the legal definition of the boundaries and how the data appear today. The state boundary was digitized on-screen using the DRGs as a background upon which to trace the line work. In the lower Potomac River, DCR used 1:12000 scale digital orthophoto quarter quads (DOQQs) having photo dates of 1992-1996 as the source for the boundary definition. Maps of the state boundary along the Potomac River are included in Technical Support Document for Identification of Chesapeake Bay Designated Uses and Attainability: 2004 Addendum (U.S. Environmental Protection Agency 2004b).

For the Maryland-District of Columbia boundary lines that cross the Potomac River diagonally from the Virginia shoreline, data provided by the District of Columbia Department of Health's Water Quality Control Branch were used. These data and the VA DCR data were merged to create a boundary file that all three jurisdictions agreed to use in allocating SAV restoration goals in those shared segments.

Later, it was determined that all segments that crossed jurisdictional boundaries needed to be subdivided. This included the continuation of the Maryland-Virginia boundary across the Chesapeake Bay and partly up the tidal Pocomoke River, and

the two tidal tributaries—C & D Canal and Nanticoke River—that straddled the Maryland-Delaware boundary.

The Maryland-Virginia state boundary from VA DCR extended across the Chesapeake Bay and up the tidal Pocomoke River. This boundary was used with slight modification of some of the vertices of the boundary in Pocomoke Sound that subdivided segments POCMH and POCOH. Maryland Department of the Environment provided coordinates of a series of navigational buoys that define the Maryland-Virginia state boundary at those vertices. The original VA DCR boundary data were altered to reflect these navigational buoy locations. The differences in distance between the navigational buoy locations and the vertices in the VA DCR data were all less than 30 meters, most less than 10 meters.

For the Maryland-Delaware boundary, Maptech 1:24,000 scale DRGs were used to digitize the boundary line on-screen. The GIS coverage was then edited and the two affected segments were split by the state boundary.

Those Chesapeake Bay Program segments that encompass multiple jurisdictions are:

Segment Name	Segment Effected Descriptor	Jurisdictions
C&D Canal	C&DOH	(DE, MD)
Upper Nanticoke River	NANTF	(DE, MD)
Anacostia	ANATF	(DC, MD)
Upper Potomac River	POTTF	(DC, MD, VA)
Middle Potomac River	POTOH	(MD, VA)
Lower Potomac River	POTMH	(MD, VA)
Lower Central Chesapeake	CB5MH	(MD, VA)
Tangier Sound	TANMH	(MD, VA)
Lower Pocomoke River	POCMH	(MD, VA)
Middle Pocomoke River	POCOH	(MD, VA)

The Chesapeake Bay Program split segments were created to aid Maryland and Virginia in their adoption of SAV restoration acreages and water quality standards (U.S. Environmental Protection Agency 2004b). Two of the segments that were split for this purpose (POTOH and TANMH) share both Maryland and Virginia waters. Since the two segments were split by request of Maryland Department of the Environment for Maryland attainment, only the Maryland portion of those segments was required. The state boundary data that was used to subdivide all shared segments by jurisdiction was also used to subdivide the split segments POTOH1 and TANMH1. Only the Maryland portion of these split segments was retained in the data set.

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## WEB ACCESS TO SEGMENTATION SCHEMES

The Chesapeake Bay Program partners maintain web access to the past and present segmentation schemes at [www.chesapeakebay.net](http://www.chesapeakebay.net). Segment maps and a map of current monitoring stations can be found under Maps and Mapping at this website. Segment maps and monitoring maps are available in GIS format at:

<ftp://ftp.chesapeakebay.net/pub/Geographic/Chesapeake Bay>.

The appendices contained in this addendum are available as an EXCEL file at:

[www.chesapeakebay.net/segmentscheme.htm](http://www.chesapeakebay.net/segmentscheme.htm).

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## LITERATURE CITED

U.S. Environmental Protection Agency. 2004a. Chesapeake Bay Program Analytical Segmentation Scheme: Revisions, Decisions and Rationale 1983-2003. EPA 903-R-04-008. CBP/TRS 268/04. Chesapeake Bay Program Office, Annapolis, Maryland.

U.S. Environmental Protection Agency. 2004b. Technical Support Document for Identification of Chesapeake Bay Designated Uses and Attainability. EPA 903-R-04-006. Chesapeake Bay Program Office, Annapolis, Maryland.

# appendix **b**

## Maryland's and Virginia's Chesapeake Bay Program Split Segments Boundary Delineations by Jurisdiction

**Table B-1.** Latitude/longitude and narrative geo-reference identifiers for the end coordinates bounding each of Maryland's and Virginia's split Chesapeake Bay Program segments.

Segment Description	Chesapeake Bay Program Segment	Split Segment	Number of Latitude/ Longitude Coordinates to Follow
<b>MARYLAND SPLIT SEGMENTS</b>			
<b>Northern Chesapeake</b>	<b>CB1TF</b>	<b>CB1TF1</b>	8
39.420143 -76.123344		1000 feet southwest of Cherry Tree Point, Aberdeen Proving Ground	
39.401688 -76.035194		North of Chesapeake Haven, Grove Neck	
39.429420 -75.997681		1300 feet southwest of Wroth Point	
39.449200 -76.007698		Turkey Point	
39.449471 -76.010475		Turkey Point, 0.1 miles west southwest of lighthouse	
39.475323 -76.072807		Locust Point on Spesutie Island	
39.476006 -76.094421		East side of Spesutie Narrows bridge	
39.475132 -76.097580		West side of Spesutie Narrows bridge	
		<b>CB1TF2</b>	10
39.475132 -76.097580		West side of Spesutie Narrows bridge	
39.476006 -76.094421		East side of Spesutie Narrows bridge	
39.475323 -76.072807		Locust Point on Spesutie Island	
39.449471 -76.010475		Turkey Point, 0.1 miles west southwest of lighthouse	
39.529629 -75.979271		Red Point	
39.540794 -76.002899		East side of Carpenter Point	
39.608994 -76.121094		Port Deposit	
39.608959 -76.132683		East side Spencer Island	
39.609001 -76.135147		West side Spencer Island	
39.608971 -76.143379		Just south of Rock Run on western shore	
<b>Gunpowder River</b>	<b>GUNOH</b>	<b>GUNOH1</b>	8
39.316414 -76.331039		Carroll Island, midway between White Oak and Carroll Points	
39.312862 -76.321449		Carroll Point	
39.312767 -76.321190		Carroll Point	
39.303204 -76.296249		Rickett Point at end of Ricketts Point Road	
39.356564 -76.322929		Maxwell Point	
39.358330 -76.345024		Cunninghill Cove, mouth of unnamed creek	
39.326569 -76.361801		170 feet south of west side of bridge to Carroll Island	
39.326477 -76.361130		170 feet south of east side of bridge to Carroll Island	



Segment Description	Chesapeake Bay Program Segment	Split Segment	Number of Latitude/ Longitude Coordinates to Follow
		<b>GUNOH2</b>	3
39.358330	-76.345024	Cunninghill Cove, mouth of unnamed creek	
39.356564	-76.322929	Maxwell Point	
39.412685	-76.400780	Gunpowder Falls, 1500 feet below Route 7	
<b>Lower Patuxent River</b>	<b>PAXMH</b>	<b>PAXMH1</b>	12
38.304638	-76.421448	Fishing Point	
38.319176	-76.420990	Drum Point	
38.322941	-76.451630	Point of land south of Ship Point and east of Ma Leg Island	
38.321041	-76.451965	Eastern tip of Solomons Island	
38.386593	-76.498840	Mouth of St. Leonard Creek, east side	
38.389153	-76.506416	Petersons Point	
38.412220	-76.542747	Island Creek mouth, east side	
38.411896	-76.544487	Island Creek mouth, Broomes Island side	
38.481140	-76.647560	0.64 miles south of Sandy Point near Buzzard Island	
38.475594	-76.662788	Trent Hall Point	
38.342590	-76.500587	Mouth of Cuckold Creek, north side	
38.339634	-76.499550	Mouth of Cuckold Creek, south side	
		<b>PAXMH2</b>	4
38.475594	-76.662788	Trent Hall Point	
38.481140	-76.647560	0.64 miles south of Sandy Point near Buzzard Island	
38.540684	-76.668045	Gods Grace Point near end of Leitchs Wharf Road	
38.542320	-76.678818	Chalk Point, eastern side	
		<b>PAXMH3</b>	2
38.321041	-76.451965	Eastern tip of Solomons	
38.322941	-76.451630	Point of land south of Ship Point and east of Ma Leg Island	
		<b>PAXMH4</b>	2
38.339634	-76.499550	Mouth of Cuckold Creek, south side	
38.342590	-76.500587	Mouth of Cuckold Creek, north side	
		<b>PAXMH5</b>	3
38.389153	-76.506416	Petersons Point	
38.386593	-76.498840	Mouth of St. Leonard Creek, east side	
38.446831	-76.492088	0.25 miles downstream of Parran Road	
		<b>PAXMH6</b>	3
38.411896	-76.544487	Island Creek mouth, Broomes Island Side	
38.412220	-76.542747	Island Creek mouth, east side	
38.433407	-76.540894	0.7 miles north of point where Marshall Road ends	
<b>Middle Potomac River</b>	<b>POTOH</b>	<b>POTOH1</b>	8
38.389680	-77.029268	MLW 1 mile southeast of Mathias Point, just north of Route 639	
38.407509	-76.997322	0.65 miles northwest of the town of Popes Creek	
38.444935	-77.016396	1.5 miles southeast of Chapel Point, due east of Windmill Point	
38.444565	-77.040695	Windmill Point	
38.408894	-77.110886	Blossom Point	
38.408745	-77.124855	0.15 miles southwest of Benny Gray Point	
38.523266	-77.256630	1000 feet southwest of Moss Point	
38.524168	-77.284864	MLW midway between Shipping Point and Quantico Pier	
Following the MLW line which defines the Maryland/Virginia boundary to the first point described above, except for the following embayments where the boundary is the confluence of the mouth of the embayment with the Potomac River:			
Unnamed Embayment (Chopawamsic Island)			
Unnamed Embayment (near Arkendale Road)			
Aquia Creek			
Potomac Creek			

Segment Description	Chesapeake Bay Program Segment	Split Segment	Number of Latitude/ Longitude Coordinates to Follow
		<b>POTOH2</b>	3
38.444565	-77.040695	Windmill Point	
38.444935	-77.016396	1.5 miles southeast of Chapel Point, due east of Windmill Point	
38.500164	-77.026306	Port Tobacco Marina (edge of 7.5' quad sheet)	
		<b>POTOH3</b>	3
38.408745	-77.124855	0.15 miles southwest of Benny Gray Point	
38.408894	-77.110886	Blossom Point	
38.475391	-77.130676	Wards Run, 0.25 miles upstream of Hill Top Fork	
<b>Elk River</b>		<b>ELKOH ELKOH1</b>	8
39.449200	-76.007698	Turkey Point	
39.429420	-75.997681	1300 feet southwest of Wroth Point	
39.474773	-75.940498	East of Ford Landing on Veazey Neck	
39.486473	-75.923767	Town Point	
39.523182	-75.871521	West of where the road north from Randalia ends	
39.525536	-75.874619	East side of Welch Point	
39.544392	-75.855301	Paddy Biddle Cove	
39.545540	-75.876144	0.6 miles south of Elkmore	
		<b>ELKOH2</b>	3
39.545540	-75.876144	0.6 miles south of Elkmore	
39.544392	-75.855301	Paddy Biddle Cove	
39.607624	-75.822853	Elkton, 500 feet below Route 7	
<b>Sassafras River</b>		<b>SASOH SASOH1</b>	4
39.389511	-76.040848	Grove Point	
39.372025	-76.101227	2850 feet east of Howells Point	
39.371868	-75.955750	0.66 miles northwest of Freeman Creek	
39.378330	-75.961472	Cassidy Wharf	
		<b>SASOH2</b>	3
39.378330	-75.961472	Cassidy Wharf	
39.371868	-75.955750	0.66 miles northwest of Freeman Creek	
39.376785	-75.806549	350 feet upstream of Route 301	
<b>Tangier Sound</b>		<b>TANMH TANMH1</b>	28
37.941404	-76.083908	MD/VA boundary, 2.25 miles west of Smith Gut Point	
37.953599	-76.052055	MD/VA boundary, 1450 feet west of Hog Neck	
37.953392	-75.993331	MD/VA boundary, 400 feet east of Horse Hammock	
37.946050	-75.943628	MD/VA boundary, between Smith and Cedar Island	
37.906718	-75.952630	MD/VA boundary, 2.75 miles west of Clump Island	
37.911304	-75.883558	MD/VA boundary, 300 feet north of Green Harbor Island	
37.911789	-75.837732	MD/VA boundary, 1.15 miles south of Cow Gap Island	
37.924927	-75.848007	Eastward Point, on eastern side of Broad Creek	
38.015781	-75.845947	East side of Daugherty Creek Canal	
38.016033	-75.846458	West side of Daugherty Creek Canal	
38.020733	-75.856712	South side of gut southwest of Acre Creek	
38.020973	-75.856819	North side of gut southwest of Acre Creek	
38.036049	-75.868935	700 feet east of Flatcap Point, Janes Island	
38.058910	-75.868744	South shore of Pat Island	
38.064907	-75.866974	NE Pat Island- across gut from Hazard Island	
38.065315	-75.866608	Hazard Island- across gut from Pat Island	
38.075314	-75.870750	Gut between Hazard Cove and Mine Cr.- south side	
38.075665	-75.871155	Gut between Hazard Cove and Mine Cr.- north side	
38.078552	-75.877586	Hazard Island- 1200 feet northeast of tip of Hazard Pt.	
38.122917	-75.937126	Eastern side of Little Deal Island	
38.125946	-75.941216	Eastern point on north side of Little Deal Island	
38.131565	-75.948860	Wenona on Deal Island, north of channel	
38.136566	-75.959633	Twiggs Point	
38.232738	-75.972618	Southern-most point of Clay Island	

Segment Description	Chesapeake Bay Program Segment	Split Segment	Number of Latitude/Longitude Coordinates to Follow
38.216042	-76.032051	Bishops Head Point	8
38.215809	-76.032349	Bishops Head Point	
38.231964	-76.134285	Lower Hooper Island between Nancys and Creek Points	
38.231445	-76.135773	Lower Hooper Island between Nancys and Creek Points	
		<b>TANMH2</b>	
38.232738	-75.972618	Southern-most point of Clay Island	
38.136566	-75.959633	Twiggs Point	
38.160080	-75.932388	Upper Thorofare, Deal Island side	
38.160442	-75.929558	Upper Thorofare at the mouth of Moores Gut	
38.202679	-75.890579	1100 feet west of the tip of Long Point	
38.227970	-75.893486	Nanticoke Point (Stump Point Marsh)	
38.243217	-75.906105	West of Waterview, north of Jones Creek	
38.244740	-75.941284	Sandy Island, northeast of Frog Point	
<b>Manokin River</b>		<b>MANMH</b>	14
38.131565	-75.948860	Wenona on Deal Island, north of channel	
38.125946	-75.941216	Eastern point on north side of Little Deal Island	
38.122917	-75.937126	Eastern side of Little Deal Island	
38.078552	-75.877586	Hazard Island, 1200 feet northeast of tip of Hazard Point	
38.075665	-75.871155	Gut between Hazard Cove and Mine Creek, north side	
38.075314	-75.870750	Gut between Hazard Cove and Mine Creek, south side	
38.069160	-75.855591	West part Hazard Island at Shirtpond Cove	
38.069599	-75.853897	East part Hazard Island at Shirtpond Cove	
38.073784	-75.848656	West side of gut heading north from Flatland Cove	
38.074146	-75.848228	East side of gut heading north from Flatland Cove	
38.133823	-75.827339	Cormal Point	
38.142979	-75.821144	Champ Point	
38.160442	-75.929558	Upper Thorofare at the mouth of Moores Gut	
38.160080	-75.932388	Upper Thorofare, Deal Island side	3
		<b>MANMH2</b>	
38.142979	-75.821144	Champ Point	
38.133823	-75.827339	Cormal Point	14
38.172668	-75.732979	Manokin River confluence with Hall Branch	
<b>Big Annemessex River</b>		<b>BIGMH</b>	
38.058910	-75.868744	South shore of Pat Island	
38.036049	-75.868935	700 feet east of Flatcap Point, Janes Island	
38.020973	-75.856819	North side of gut southwest of Acre Creek	
38.020733	-75.856712	South side of gut southwest of Acre Creek	
38.016033	-75.846458	West side of Daugherty Creek Canal	
38.015781	-75.845947	East side of Daugherty Creek Canal	
38.078850	-75.782249	Persimmon Point	
38.074585	-75.787170	Charles Point	
38.074146	-75.848228	East side of gut heading north from Flatland Cove	
38.073784	-75.848656	West side of gut heading north from Flatland Cove	
38.069599	-75.853897	East part Hazard Island at Shirtpond Cove	
38.069160	-75.855591	West part Hazard Island at Shirtpond Cove	
38.065315	-75.866608	Hazard Island, across gut from Pat Island	
38.064907	-75.866974	Northeast Pat Island, across gut from Hazard Island	3
		<b>BIGMH2</b>	
38.074585	-75.787170	Charles Point	
38.078850	-75.782249	Persimmon Point	1000 feet below confluence with Annemessex Creek
38.087246	-75.733032		



Segment Description	Chesapeake Bay Program Segment	Split Segment	Number of Latitude/ Longitude Coordinates to Follow
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#### VIRGINIA SPLIT SEGMENTS

<b>Upper James River</b>		<b>JMSTF</b>	<b>JMSTF1</b>	6
37.227379	-76.946426	0.3 miles downstream of Sloop Point		
37.241180	-76.945686	Tettington, 500 feet downstream of road to the river		
37.332580	-77.267880	Most western point of Eppes Island		
37.334998	-77.274640	South of Bermuda Hundred, west of substation		
37.329826	-77.281128	Mouth of small creek east of Shand Creek and north of light		
37.317638	-77.277275	City Point, Hopewell		
		<b>JMSTF2</b>		3
37.334998	-77.274640	South of Bermuda Hundred, west of substation		
37.332580	-77.267880	Most western point of Eppes Island		
37.533394	-77.436775	Upstream of Mayos Bridge, as far as Browns Island dam		

# appendix C

## 2003 Chesapeake Bay Program Segmentation Scheme Coordinates Geo-reference and Narrative Descriptions by Jurisdiction

**Table C-1.** Textual description of coordinates bounding the 2003 Chesapeake Bay Program Segmentation Scheme segments by jurisdiction.

Segment Description	Chesapeake Bay Program Segment	Number of Latitude/ Longitude Coordinates to Follow
<b>MARYLAND SEGMENT BOUNDARIES</b>		
<b>Northern Chesapeake Bay</b>	<b>CB1TF</b>	10
39.420143 -76.123344	1000 feet southwest of Cherry Tree Point, Aberdeen Proving Ground	
39.401688 -76.035194	North of Chesapeake Haven, Grove Neck	
39.429420 -75.997681	1300 feet southwest of Wroth Point	
39.4492 -76.007698	Turkey Point	
39.529629 -75.979271	Red Point	
39.540794 -76.002899	East side of Carpenter Point	
39.608994 -76.121094	Port Deposit	
39.608959 -76.132683	East side Spencer Island	
39.609001 -76.135147	West side Spencer Island	
39.608971 -76.143379	Just south of Rock Run on western shore	
<b>Bush River</b>	<b>BSHOH</b>	3
39.339172 -76.256592	800 feet upriver of Leges Point	
39.351715 -76.232986	Mouth of Abbey Creek	
39.482510 -76.215805	Church Creek, at the railroad tracks	
<b>Gunpowder River</b>	<b>GUNOH</b>	7
39.316414 -76.331039	Carroll Island, midway between White Oak and Carroll Points	
39.312862 -76.321449	Carroll Point	
39.312767 -76.321190	Carroll Point	
39.303204 -76.296249	Rickett Point at end of Ricketts Point Road	
39.412685 -76.400780	Gunpowder Falls, 1500 feet below Route 7	
39.326569 -76.361801	170 feet south of west side of bridge to Carroll Island	
39.326477 -76.361130	170 feet south of east side of bridge to Carroll Island	
<b>Middle River</b>	<b>MIDOH</b>	5
39.286442 -76.384102	North shore of Holly Beach	
39.309422 -76.342964	Carroll Island, between Weir Point and Hawthorn Cove	
39.326477 -76.361130	170 feet south of east side of bridge to Carroll Island	
39.326569 -76.361801	170 feet south of west side of bridge to Carroll Island	
39.329792 -76.446922	150 feet downstream of railroad tracks, above Eastern Blvd	

Segment Description	Chesapeake Bay Program Segment	Number of Latitude/Longitude Coordinates to Follow
<b>Upper Chesapeake Bay</b>	<b>CB2OH</b>	16
39.225143 -76.408775	North Point State Park, Black Marsh, 1200 feet northeast of small creek	
39.207447 -76.246994	3000 feet south of Route 21 (Tolchester Beach Road)	
39.372025 -76.101227	2850 feet east of Howells Point	
39.389511 -76.040848	Grove Point	
39.401688 -76.035194	North of Chesapeake Haven, Grove Neck	
39.420143 -76.123344	1000 feet southwest of Cherry Tree Point, Aberdeen Proving Ground	
39.351715 -76.232986	Mouth of Abbey Creek	
39.339172 -76.256592	800 feet upriver of Leges Point	
39.303204 -76.296249	Rickett Point at end of Ricketts Point Road	
39.312767 -76.321190	Carroll Point	
39.312862 -76.321449	Carroll Point	
39.316414 -76.331039	Carroll Island, midway between White Oak and Carroll Points	
39.309422 -76.342964	Carroll Island, between Weir Point and Hawthorn Cove	
39.286442 -76.384102	North shore of Holly Beach	
39.248951 -76.410530	Rocky Point Park, between Claybank and Cedar Points	
39.231178 -76.408920	Swan Point, in line with 11th Street	
<b>Back River</b>	<b>BACOH</b>	3
39.231178 -76.408920	Swan Point, in line with 11th Street	
39.248951 -76.410530	Rocky Point Park, between Claybank and Cedar Points	
39.307873 -76.520416	Moore's Run, 1.25 miles above I-695	
<b>Patapsco River</b>	<b>PATMH</b>	3
39.131855 -76.435081	Bodkin Neck between Cedar and Bodkin Points	
39.195377 -76.444511	North Point south of Fort Howard	
39.275375 -76.654480	Gwynns Falls, upstream end of Carroll Park	
<b>Magothy River</b>	<b>MAGMH</b>	3
39.039185 -76.414330	Between Beacon Hill and Tydings on the Bay	
39.074715 -76.422539	East side Gibson Island across from Hapenny Way	
39.114807 -76.548195	End of estuary below Catherine Avenue.	
<b>Upper Central Chesapeake</b>	<b>CB3MH</b>	12
38.995991 -76.413185	500 feet southeast of Moss Pond	
38.989105 -76.330185	0.6 miles northeast of where Route 50 west meets the Bay	
39.016422 -76.296959	Kent Island, 1600 feet north of Grollman Road	
39.029720 -76.242516	Wickes Beach, Eastern Neck Island	
39.054563 -76.220229	Northern tip of Eastern Neck Island, east of Route 445 bridge	
39.056882 -76.220903	South end of Eastern Neck, east of Route 445 bridge	
39.207447 -76.246994	3000 feet south of Route 21 (Tolchester Beach Road)	
39.225143 -76.408775	North Point State Park, Black Marsh, 1200 feet northeast of small creek	
39.195377 -76.444511	North Point south of Fort Howard	
39.131855 -76.435081	Bodkin Neck between Cedar and Bodkin Points	
39.074715 -76.422539	East side Gibson Island across from Hapenny Way	
39.039185 -76.414330	Between Beacon Hill and Tydings on the Bay	
<b>Severn River</b>	<b>SEVMH</b>	3
38.946095 -76.455879	Bay Ridge, near Bainbridge Avenue	
38.976032 -76.452377	Greenbury Point, 800 feet up east side from the tip	
39.079697 -76.623398	Severn Run, 1100 feet downstream of Veterans Hwy	
<b>South River</b>	<b>SOUMH</b>	4
38.888672 -76.489876	Saunders Point, south of Mayo Beach Park	
38.886829 -76.475616	0.8 miles east of Saunders Point	
38.907860 -76.466240	Southern shore of Thomas Point Park	
38.983105 -76.606232	700 feet upstream of Route 50	

Segment Description	Chesapeake Bay Program Segment	Number of Latitude/ Longitude Coordinates to Follow
<b>Rhode River</b>	<b>RHDMH</b>	5
38.867775 -76.519608	Salt Pond at the mouth of the Rhode River	
38.864788 -76.485870	1.2 miles east southeast of Dutchman Point	
38.886829 -76.475616	0.8 miles east of Saunders Point	
38.888672 -76.489876	Saunders Point, south of Mayo Beach Park	
38.883629 -76.554649	Muddy Creek, 1200 feet below North and South Forks converge	
<b>West River</b>	<b>WSTMH</b>	4
38.848892 -76.493805	Felicity Cove, 250 feet north of Bay Road	
38.864788 -76.485870	1.2 miles east southeast of Dutchman Point	
38.867775 -76.519608	Salt Pond at the mouth of the Rhode River	
38.822258 -76.551514	2400 feet downstream of Shady Side	
<b>Middle Central Chesapeake Bay</b>	<b>CB4MH</b>	18
38.384819 -76.381432	Cove Point	
38.393951 -76.282532	Meekins Neck, 800 feet north of Cattail Island	
38.421051 -76.288589	Meekins Neck, across channel from Point #4	
38.421944 -76.288742	Southern tip of Taylors Island	
38.487057 -76.331779	West side of Oyster Cove, Taylors Island	
38.526997 -76.333771	190 feet south of LCHMH Point #3	
38.527523 -76.333801	East edge of tidal flat north of existing James Island	
38.672421 -76.340698	720 feet along shore north northwest of Blackwalnut Point	
38.719185 -76.334084	South side Knapps Narrows, 275 feet west of Route 33	
38.719967 -76.333054	North side Knapps Narrows, 150 feet west of Route 33	
38.752529 -76.340332	1500 feet northeast of Green Marsh Point	
38.836365 -76.369392	Kent Point	
38.989105 -76.330185	0.6 miles northeast of where Route 50 west meets the Bay	
38.995991 -76.413185	500 feet southeast of Moss Pond	
38.976032 -76.452377	Greenbury Point, 800 feet up east side from the tip	
38.946095 -76.455879	Bay Ridge, near Bainbridge Avenue	
38.907860 -76.466240	Southern shore of Thomas Point Park	
38.848892 -76.493805	Felicity Cove, 250 feet north of Bay Road	
<b>Western Branch Patuxent River</b>	<b>WBRTE</b>	3
38.784637 -76.713326	Mouth of Western Branch, west side	
38.785023 -76.712456	Mouth of Western Branch, east side	
38.797241 -76.729507	Where Western Branch narrows, north of sewage plant	
<b>Upper Patuxent River</b>	<b>PAXTF</b>	5
38.700325 -76.695824	On marshy point 0.5 miles north of Hotschkins Branch	
38.700516 -76.694160	0.8 miles north of Jones Point	
38.874958 -76.677834	Near unnamed stream south of Mt. Nebo Branch	
38.785023 -76.712456	Mouth of Western Branch, east side	
38.784637 -76.713326	Mouth of Western Branch, west side	
<b>Middle Patuxent River</b>	<b>PAXOH</b>	4
38.542320 -76.678818	Chalk Point, eastern side	
38.540684 -76.668045	Gods Grace Point near end of Leitchs Wharf Road	
38.700516 -76.694160	0.8 miles north of Jones Point	
38.700325 -76.695824	On marshy point 0.5 miles north of Hotschkins Branch	
<b>Lower Patuxent River</b>	<b>PAXMH</b>	4
38.304638 -76.421448	Fishing Point	
38.319176 -76.420990	Drum Point	
38.540684 -76.668045	Gods Grace Point near end of Leitchs Wharf Road	
38.542320 -76.678818	Chalk Point, eastern side	

Segment Description	Chesapeake Bay Program Segment	Number of Latitude/Longitude Coordinates to Follow
<b>Lower Central Chesapeake Bay</b>	<b>CB5MH</b>	17
37.889451 -76.236198	Smith Point.	
37.885680 -76.229038	MD/VA boundary, 2500 feet southwest of Smith Point	
37.941404 -76.083908	MD/VA boundary, 2.25 miles west of Smith Gut Point	
38.051910 -76.128838	7000 feet north and 2500 feet west of Fog Point, Smith Island	
38.231445 -76.135773	Lower Hooper Island between Nancys and Creek Points.	
38.248581 -76.153191	Lower Hooper Island, northeast end of The Thorofare	
38.248642 -76.154419	Middle Hooper Island, northwest end of The Thorofare	
38.295982 -76.204597	Northwest tip of Middle Hooper Island across from Ferry Point	
38.298965 -76.206718	Ferry Point	
38.348228 -76.227264	Drawbridge, northern Upper Hooper Island	
38.349953 -76.227982	Drawbridge, southern Meekins Neck	
38.393951 -76.282532	Meekins Neck, 800 feet north of Cattail Island	
38.384819 -76.381432	Cove Point	
38.319176 -76.420990	Drum Point	
38.304638 -76.421448	Fishing Point	
38.038605 -76.321442	Point Lookout	
37.909725 -76.263702	East of Ophelia, 300 feet northwest of light	
<b>Anacostia River</b>	<b>ANATF</b>	3
38.918850 -76.941951	MD/DC boundary, western shore	
38.918261 -76.941198	MD/DC boundary, eastern side of Route 50 bridge	
38.938805 -76.942162	100 feet below Bladensburg Road bridge	
<b>Upper Potomac River</b>	<b>POTTF</b>	10
38.524168 -77.284864	MLW midway between Shipping Point and Quantico Pier	
38.523266 -77.256630	1000 feet southwest of Moss Point	
38.554722 -77.220268	Stump Neck, east of radio towers and west of Roach Road	
38.566856 -77.209755	Cornwallis Neck, 0.25 miles northwest of Deep Point	
38.702038 -77.044693	Mockley Point, 500 feet west of tip	
38.711002 -77.036736	West of Fort Washington	
38.809449 -77.016184	DC/MD boundary, northern shore of Oxon Creek	
38.805753 -77.020951	DC/MD boundary, southern shore of Oxon Creek	
38.802464 -77.025166	DC/MD boundary, near Fox Ferry Point	
38.791836 -77.038923	DC/MD/VA boundary 200 feet east of Jones Point Park	
Following the MLW line which defines the Maryland/Virginia boundary to the first point described above, except for the following embayments where the boundary is the confluence of the mouth of the embayment with the Potomac River:		
Hunting Creek	Unnamed embayment (Mason Neck NWR)	
Little Hunting Creek	Occoquan Bay	
Dogue Creek	Powells Creek	
Gunston Cove	Quantico Creek	
<b>Piscataway River</b>	<b>PISTF</b>	3
38.711002 -77.036736	West of Fort Washington	
38.702038 -77.044693	Mockley Point, 500 feet west of tip	
38.697979 -76.996788	Piscataway Creek Park, north of sewage disposal plant	
<b>Mattawoman Creek</b>	<b>MATTF</b>	3
38.566856 -77.209755	Cornwallis Neck, 0.25 miles northwest of Deep Point	
38.554722 -77.220268	Stump Neck, east of radio towers and west of Roach Road	
38.591194 -77.124672	2300 feet downstream of Routes 224/225 (7.5' quad edge)	



Segment Description	Chesapeake Bay Program Segment	Number of Latitude/Longitude Coordinates to Follow
<b>Middle Potomac River</b>	<b>POTOH</b>	4
38.389680 -77.029268	MLW 1 mile southeast of Mathias Point, just north of Route 639	
38.407509 -76.997322	0.65 miles northwest of the town of Popes Creek	
38.523266 -77.256630	1000 feet southwest of Moss Point	
38.524168 -77.284864	MLW midway between Shipping Point and Quantico Pier	
Following the MLW line which defines the Maryland/Virginia boundary to the first point described above, except for the following embayments where the boundary is the confluence of the mouth of the embayment with the Potomac River:		
Unnamed Embayment (Chopawamsic Island)		
Unnamed Embayment (near Arkendale Road)		
Aquia Creek		
Potomac Creek		
<b>Lower Potomac River</b>	<b>POTMH</b>	4
37.909777 -76.263700	MLW east of Ophelia, 300 feet northwest of light	
38.038605 -76.321442	Point Lookout	
38.407509 -76.997322	0.65 miles northwest of the town of Popes Creek	
38.389680 -77.029268	MLW 1 mile southeast of Mathias Point, just north of Route 639	
Following the MLW line which defines the Maryland/Virginia boundary to the first point described above, except for the following embayments where the boundary is the confluence of the mouth of the embayment with the Potomac River:		
Upper Machodoc Creek	Gardner Creek	
Rosier Creek	Jackson Creek	
Monroe Bay	Bonum Creek	
Mattox Creek	Yeocomico River	
Popes Creek	Coan River	
Nomini Bay	Presley Creek	
Lower Machodoc Creek	Hull Creek	
Unnamed Embayment (south of Ragged Point)	Hock Creek	
<b>Northeast River</b>	<b>NORTF</b>	3
39.540794 -76.002899	East side of Carpenter Point	
39.529629 -75.979271	Red Point	
39.608879 -75.937988	750 feet above railroad bridge, 1500 feet below Route 40	
<b>Elk River</b>	<b>ELKOH</b>	7
39.449200 -76.007698	Turkey Point	
39.429420 -75.997681	1300 feet southwest of Wroth Point	
39.474773 -75.940498	East of Ford Landing on Veazey Neck	
39.486473 -75.923767	Town Point	
39.523182 -75.871521	West of where the road north from Randalia ends	
39.525536 -75.874619	East side of Welch Point	
39.607624 -75.822853	Elkton, 500 feet below Route 7	
<b>C&amp;D Canal</b>	<b>C&amp;DOH</b>	4
39.525536 -75.874619	East side of Welch Point	
39.523182 -75.871521	West of where the road north from Randalia ends	
39.534616 -75.779424	MD/DE state line, southern shore	
39.536623 -75.779582	MD/DE state line, northern shore	
<b>Bohemia River</b>	<b>BOHOH</b>	3
39.486473 -75.923767	Town Point	
39.474773 -75.940498	East of Ford Landing on Veazey Neck	
39.461319 -75.783554	600 feet below entrance of Sandy Branch	

Segment Description	Chesapeake Bay Program Segment	Number of Latitude/Longitude Coordinates to Follow
<b>Sassafras River</b>	<b>SASOH</b>	3
39.389511 -76.040848	Grove Point	
39.372025 -76.101227	2850 feet east of Howells Point	
39.376785 -75.806549	350 feet upstream of Route 301	
<b>Upper Chester River</b>	<b>CHSTF</b>	3
39.246002 -75.986618	Travilla Wharf	
39.245350 -75.985878	Marshy point across from Travilla Wharf	
39.254440 -75.839638	Andover Branch 900 feet above Route 313	
<b>Middle Chester River</b>	<b>CHSOH</b>	4
39.147564 -76.086426	1100 feet below Browns Creek	
39.146572 -76.075684	Northwest Point, west of Riverview	
39.245350 -75.985878	Marshy point across from Travilla Wharf	
39.246002 -75.986618	Travilla Wharf	
<b>Lower Chester River</b>	<b>CHSMH</b>	8
39.029720 -76.242516	Wickes Beach, Eastern Neck Island	
39.016422 -76.296959	Kent Island, 1600 feet north of Grollman Road	
38.970539 -76.248413	Route 50, west side of Kent Narrows	
38.970455 -76.246330	Route 50, east side of Kent Narrows	
39.146572 -76.075684	Northwest Point, west of Riverview	
39.147564 -76.086426	1100 feet below Browns Creek	
39.056882 -76.220903	South end of Eastern Neck, east of Route 445 bridge	
39.054563 -76.220229	Northern tip of Eastern Neck Island, east of Route 445 bridge	
<b>Eastern Bay</b>	<b>EASMH</b>	4
38.836365 -76.369392	Kent Point	
38.752529 -76.340332	1500 feet northeast of Green Marsh Point	
38.970455 -76.246330	Route 50, east side of Kent Narrows	
38.970539 -76.248413	Route 50, west side of Kent Narrows	
<b>Upper Choptank River</b>	<b>CHOTF</b>	3
38.810635 -75.902985	1850 feet downstream from mouth of Tuckahoe Creek	
38.808270 -75.900391	1000 feet downstream of Gilpin Point	
38.980827 -75.792931	3500 feet upstream of Route 313 bridge	
<b>Middle Choptank River</b>	<b>CHOOH</b>	4
38.653545 -75.959129	1.5 miles downstream of Bow Knee Point	
38.647415 -75.952339	1.05 miles upstream of Cabin Creek	
38.808270 -75.900391	1000 feet downstream of Gilpin Point	
38.810635 -75.902985	1850 feet downstream from mouth of Tuckahoe Creek	
<b>Lower Choptank River</b>	<b>CHOMH1</b>	7
38.672421 -76.340698	720 feet along shore north northwest of Blackwalnut Point	
38.571705 -76.336029	Hills Point	
38.573353 -76.306503	1.6 miles almost due west of Hills Point	
38.628571 -76.171051	400 feet west of Castle Haven Point	
38.649193 -76.153114	0.9 miles north of Chlora Point	
38.719967 -76.333054	North side Knapps Narrows, 150 feet west of Route 33	
38.719185 -76.334084	South side Knapps Narrows, 275 feet west of Route 33	
<b>Mouth of Choptank River</b>	<b>CHOMH2</b>	4
38.649193 -76.153114	0.9 miles north of Chlora Point	
38.628571 -76.171051	400 feet west of Castle Haven Point	
38.647415 -75.952339	1.05 miles upstream of Cabin Creek	
38.653545 -75.959129	1.5 miles downstream of Bow Knee	



Segment Description	Chesapeake Bay Program Segment	Number of Latitude/Longitude Coordinates to Follow
<b>Little Choptank River</b>	<b>LCHMH</b>	9
38.573353 -76.306503	1.6 miles almost due west of Hills Point	
38.571705 -76.336029	Hills Point	
38.527523 -76.333801	East edge of tidal flat north of existing James Island	
38.526997 -76.333771	190 feet south of LCHMH Point #3	
38.487057 -76.331779	West side of Oyster Cove, Taylors Island	
38.421944 -76.288742	Southern tip of Taylors Island	
38.421051 -76.288589	Meekins Neck, across channel from Point #6	
38.398201 -76.237053	West shore Great Marsh Creek 1800 feet above Route 335	
38.398605 -76.237030	East shore Great Marsh Creek 1800 feet above Route 335	
<b>Honga River</b>	<b>HNGMH</b>	10
38.231964 -76.134285	Lower Hooper Island between Nancys and Creek Points	
38.215809 -76.032349	Bishops Head Point	
38.398605 -76.237030	Great Marsh Creek, north side, 1900 feet above Route 335	
38.398201 -76.237053	Great Marsh Creek, south side, 1900 feet above Route 335	
38.349953 -76.227982	Drawbridge, southern Meekins Neck	
38.348228 -76.227264	Drawbridge, northern Upper Hooper Island	
38.298965 -76.206718	Ferry Point	
38.295982 -76.204597	Northwest tip of Middle Hooper Island across from Ferry Point	
38.248642 -76.154419	Middle Hooper Island, northwest end of The Thorofare	
38.248581 -76.153191	Lower Hooper Island, northeast end of The Thorofare	
<b>Fishing Bay</b>	<b>FSBMH</b>	4
38.216042 -76.032051	Bishops Head Point	
38.232738 -75.972618	Southern-most point of Clay Island	
38.404148 -76.002716	Transquaking River west of Thorofare Marsh	
38.404133 -76.029968	Backgarden Pond, southeast shore	
<b>Upper Nanticoke River</b>	<b>NANTF</b>	4
38.538052 -75.745972	600 feet upstream of Molly Horn Branch	
38.536259 -75.744843	375 feet upstream of Plum Creek	
38.559706 -75.701489	MD/DE state line, southern shore	
38.561509 -75.701629	MD/DE state line, northern shore	
<b>Middle Nanticoke River</b>	<b>NANOH</b>	5
38.387169 -75.859673	900 feet downstream of Wapremander Creek	
38.381268 -75.839233	600 feet upstream of Quantico Creek	
38.536259 -75.744843	375 feet upstream of Plum Creek	
38.538052 -75.745972	600 feet upstream of Molly Horn Branch	
38.553452 -75.774071	Marshyhope Creek, 500 feet downstream of Big Indian	
<b>Lower Nanticoke River</b>	<b>NANMH</b>	4
38.24474 -75.941284	Sandy Island, northeast of Frog Point	
38.243217 -75.906105	West of Waterview, north of Jones Creek	
38.381268 -75.839233	600 feet upstream of Quantico Creek	
38.387169 -75.859673	900 feet downstream of Wapremander Creek	
<b>Wicomico River</b>	<b>WICMH</b>	3
38.227970 -75.893486	Nanticoke Point (Stump Point Marsh)	
38.202679 -75.890579	1100 feet west of the tip of Long Point	
38.361588 -75.583061	Beaverdam Creek, 3000 feet upstream of Route 12	
<b>Tangier Sound</b>	<b>TANMH</b>	33
37.941404 -76.083908	MD/VA boundary, 2.25 miles west of Smith Gut Point	
37.953599 -76.052055	MD/VA boundary, 1450 feet west of Hog Neck	
37.953392 -75.993331	MD/VA boundary, 400 feet east of Horse Hammock	
37.946050 -75.943628	MD/VA boundary, between Smith and Cedar Islands	
37.906718 -75.952630	MD/VA boundary, 2.75 miles west of Clump Island	

Segment Description	Chesapeake Bay Program Segment	Number of Latitude/Longitude Coordinates to Follow
37.911304	-75.883558	MD/VA boundary, 300 feet north of Green Harbor Island
37.911789	-75.837732	MD/VA boundary, 1.15 south of Cow Gap Island
37.924927	-75.848007	Eastward Point, on eastern side of Broad Creek
38.015781	-75.845947	East side of Daugherty Creek Canal
38.016033	-75.846458	West side of Daugherty Creek Canal
38.020733	-75.856712	South side of gut southwest of Acre Creek
38.020973	-75.856819	North side of gut southwest of Acre Creek
38.036049	-75.868935	700 feet east of Flatcap Point, Janes Island
38.058910	-75.868744	South shore of Pat Island
38.064907	-75.866974	Northeast Pat Island, across gut from Hazard Island
38.065315	-75.866608	Hazard Island, across gut from Pat Island
38.075314	-75.870750	Gut between Hazard Cove and Mine Creek, south side
38.075665	-75.871155	Gut between Hazard Cove and Mine Creek, north side
38.078552	-75.877586	Hazard Island, 1200 feet northeast of tip of Hazard Point
38.122917	-75.937126	Eastern side of Little Deal Island
38.125946	-75.941216	Eastern point on north side of Little Deal Island
38.131565	-75.948860	Wenona on Deal Island, north of channel
38.160080	-75.932388	Upper Thorofare, Deal Island side
38.160442	-75.929558	Upper Thorofare at the mouth of Moores Gut
38.202679	-75.890579	1100 feet west of the tip of Long Point
38.227970	-75.893486	Nanticoke Point, Stump Point Marsh
38.243217	-75.906105	West of Waterview, north of Jones Creek
38.244740	-75.941284	Sandy Island, northeast of Frog Point
38.232738	-75.972618	Southern-most point of Clay Island
38.216042	-76.032051	Bishops Head Point
38.215809	-76.032349	Bishops Head Point
38.231964	-76.134285	Lower Hooper Island between Nancys and Creek Point
38.231445	-76.135773	Lower Hooper Island between Nancys and Creek Point
<b>Manokin River</b>	<b>MANMH</b>	13
38.131565	-75.948860	Wenona on Deal Island, north of channel
38.125946	-75.941216	Eastern point on north side of Little Deal Island
38.122917	-75.937126	Eastern side of Little Deal Island
38.078552	-75.877586	Hazard Island, 1200 feet northeast of tip of Hazard Point
38.075665	-75.871155	Gut between Hazard Cove and Mine Creek, north side
38.075314	-75.870750	Gut between Hazard Cove and Mine Creek, south side
38.069160	-75.855591	West part Hazard Island at Shirtpond Cove
38.069599	-75.853897	East part Hazard Island at Shirtpond Cove
38.073784	-75.848656	West side of gut heading north from Flatland Cove
38.074146	-75.848228	East side of gut heading north from Flatland Cove
38.172668	-75.732979	Manokin River confluence with Hall Branch
38.160442	-75.929558	Upper Thorofare at the mouth of Moores Gut
38.160080	-75.932388	Upper Thorofare, Deal Island side
<b>Big Annemessex River</b>	<b>BIGMH</b>	13
38.058910	-75.868744	South shore of Pat Island
38.036049	-75.868935	700 feet east of Flatcap Point, Janes Island
38.020973	-75.856819	North side of gut southwest of Acre Creek
38.020733	-75.856712	South side of gut southwest of Acre Creek
38.016033	-75.846458	West side of Daugherty Creek Canal
38.015781	-75.845947	East side of Daugherty Creek Canal
38.087246	-75.733032	1000 feet below confluence with Annemessex Creek
38.074146	-75.848228	East side of gut heading north from Flatland Cove
38.073784	-75.848656	West side of gut heading north from Flatland Cove
38.069599	-75.853897	East part Hazard Island at Shirtpond Cove
38.069160	-75.855591	West part Hazard Island at Shirtpond Cove
38.065315	-75.866608	Hazard Island, across gut from Pat Island
38.064907	-75.866974	Northeast Pat Island, across gut from Hazard Island

Segment Description	Chesapeake Bay Program Segment	Number of Latitude/Longitude Coordinates to Follow
<b>Upper Pocomoke River</b>	<b>POCTF</b>	3
38.062958 -75.617470	West of Unionville, Somerset County side	
38.062840 -75.616302	West of Unionville, Worcester County side	
38.183201 -75.391991	Snow Hill, 1900 feet upstream of Route 12	
<b>Middle Pocomoke River</b>	<b>POCOH</b>	10
37.966858 -75.674603	On mainland 4000 feet northwest of Fair Island	
37.951850 -75.676225	MD/VA boundary, Pocomoke Sound	
37.949924 -75.667353	MD/VA boundary, Pocomoke Sound	
37.945125 -75.656153	MD/VA boundary south of Williams Point	
37.946728 -75.648248	MD/VA boundary, Pocomoke Sound	
37.966423 -75.648553	MD/VA boundary, 700 feet upstream of mouth	
37.994347 -75.624314	Intersection of Somerset County and Worcester County, MD and Accomack County, VA	
37.994449 -75.623122	Worcester/Accomack Co. boundary, eastern shore	
38.062840 -75.616302	West of Unionville, Worcester County side	
38.062958 -75.617470	West of Unionville, Somerset County side	
<b>Lower Pocomoke River</b>	<b>POCMH</b>	8
37.924927 -75.848007	Eastward Point, on eastern side of Broad Creek	
37.911789 -75.837732	MD/VA boundary, 1.15 south of Cow Gap Island	
37.912169 -75.801148	MD/VA boundary, Pocomoke Sound	
37.941226 -75.761753	MD/VA boundary, Pocomoke Sound	
37.954523 -75.704753	MD/VA boundary, Pocomoke Sound	
37.955327 -75.691653	MD/VA boundary, Pocomoke Sound	
37.951850 -75.676225	MD/VA boundary, Pocomoke Sound	
37.966858 -75.674603	On mainland 4000 feet northwest of Fair Island	
<b>DELAWARE SEGMENT BOUNDARIES</b>		
<b>C&amp;D Canal</b>	<b>C&amp;DOH</b>	3
39.536623 -75.779582	MD/DE state line, northern shore	
39.534616 -75.779424	MD/DE state line, southern shore	
39.542904 -75.724831	North of Summit Bridge and 250 feet east of the power line	
<b>Nanticoke</b>	<b>NANTF</b>	3
38.561509 -75.701629	MD/DE state line, northern shore	
38.559706 -75.701489	MD/DE state line, southern shore	
38.642723 -75.606522	Seaford, DE just above Middleford Road	
<b>DISTRICT OF COLUMBIA SEGMENT BOUNDARIES</b>		
<b>Upper Potomac River</b>	<b>POTTF</b>	9
38.791836 -77.038923	DC/MD/VA boundary 200 feet east of Jones Point Park	
38.802464 -77.025166	DC/MD boundary, near Fox Ferry Point	
38.805753 -77.020951	DC/MD boundary, southern shore of Oxon Creek.	
38.809449 -77.016184	DC/MD boundary, northern shore of Oxon Creek.	
38.850609 -77.018761	Border between Bolling Air Force Base and US Naval Station	
38.850546 -77.022368	2250 feet due south of western side of Hains Point	
38.856720 -77.022491	Hains Point	
38.929682 -77.115663	Chain Bridge, eastern shore	
38.929522 -77.116453	MHW, Chain Bridge, western shore	
<b>Anacostia River</b>	<b>ANATF</b>	5
38.856720 -77.022491	Hains Point	
38.850546 -77.022368	2250 feet due south of western side of Hains Point	
38.850609 -77.018761	Border between Bolling Air Force Base and US Naval Station	
38.918261 -76.941198	DC/MD boundary, eastern side of Route 50 bridge	
38.918850 -76.941951	DC/MD boundary, western shore	



Segment Description	Chesapeake Bay Program Segment	Number of Latitude/ Longitude Coordinates to Follow
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#### VIRGINIA SEGMENT BOUNDARIES

<b>Lower Central Chesapeake Bay</b>	<b>CB5MH</b>	6
37.619465 -76.280251	Fleets Island, at end of road north of Windmill Point	
37.797581 -76.025650	3 miles west northwest of Tangier Sound Light	
37.941404 -76.083908	MD/VA boundary, 2.25 miles west of Smith Gut Point	
37.885680 -76.229038	MD/VA boundary, 2500 feet southwest of Smith Point	
37.889451 -76.236198	Smith Point	
37.909725 -76.263702	East of Ophelia, 300 feet northwest of light	

<b>Upper Potomac River</b>	<b>POTTF</b>	5
38.524181 -77.285294	Midway between Shipping Point and Quantico Pier	
38.524168 -77.284864	MLW midway between Shipping Point and Quantico Pier	
38.791836 -77.038923	DC/MD/VA boundary 200 feet east of Jones Point Park	
38.929522 -77.116453	MHW, Chain Bridge, western shore	
38.929473 -77.116695	Chain Bridge, western shore	

Following the MLW line which defines the Maryland/Virginia boundary to the first point described above. This segment contains the following embayments where the Maryland/Virginia boundary is the confluence of the mouth of the embayment with the Potomac River:

Hunting Creek	Unnamed embayment (Mason Neck NWR)
Little Hunting Creek	Occoquan Bay
Dogue Creek	Powells Creek
Gunston Cove	Quantico Creek

<b>Middle Potomac River</b>	<b>POTOH</b>	4
38.389660 -77.029305	1 mile southeast of Mathias Point, just north of Route 639	
38.389680 -77.029268	MLW 1 mile southeast of Mathias Point, just north of Route 639	
38.524168 -77.284864	MLW midway between Shipping Point and Quantico Pier	
38.524181 -77.285294	Midway between Shipping Point and Quantico Pier	

Following the MLW line which defines the Maryland/Virginia boundary to the first point described above. This segment contains the following embayments where the Maryland/Virginia boundary is the confluence of the mouth of the embayment with the Potomac River:

Unnamed Embayment (Chopawamsic Island)	Aquia Creek
Unnamed Embayment (near Arkendale Road)	Potomac Creek

<b>Lower Potomac River</b>	<b>POTMH</b>	4
37.909725 -76.263702	East of Ophelia, 300 feet northwest of light	
37.909777 -76.263700	MLW east of Ophelia, 300 feet northwest of light	
38.389680 -77.029268	MLW 1 mile southeast of Mathias Point, just north of Route 639	
38.389660 -77.029305	1 mile southeast of Mathias Point, just north of Route 639	

Following the MLW line which defines the Maryland/Virginia boundary to the first point described above. This segment contains the following embayments where the Maryland/Virginia boundary is the confluence of the mouth of the embayment with the Potomac River:

Upper Machodoc Creek	Gardner Creek
Rosier Creek	Jackson Creek
Monroe Bay	Bonum Creek
Mattox Creek	Yeocomico River
Popes Creek	Coan River
Nomini Bay	Presley Creek
Lower Machodoc Creek	Hull Creek
Unnamed Embayment (south of Ragged Point)	Hock Creek

Segment Description	Chesapeake Bay Program Segment	Number of Latitude/Longitude Coordinates to Follow
<b>Middle Pocomoke River</b>	<b>POCOH</b>	8
37.951850 -75.676225	MD/VA boundary, Pocomoke Sound	
37.941841 -75.677261	Between Pig Point and Shad Landing	
37.994449 -75.623122	Worcester/Accomack County boundary, eastern shore	
37.994347 -75.624314	Intersection of Somerset County and Worcester County, MD and Accomack County, VA	
37.966423 -75.648553	MD/VA boundary, 700 feet upstream of mouth	
37.946728 -75.648248	MD/VA boundary, Pocomoke Sound	
37.945125 -75.656153	MD/VA boundary south of Williams Point	
37.949924 -75.667353	MD/VA boundary, Pocomoke Sound	
<b>Lower Pocomoke River</b>	<b>POCMH</b>	10
37.911789 -75.837732	MD/VA boundary, 1.15 miles south of Cow Gap Island	
37.806671 -75.755676	Scott Island, west side	
37.806152 -75.755272	Scott Island, south side	
37.787926 -75.741074	South of Webb Island, between Deep Creek and Doe Creek	
37.941841 -75.677261	Between Pig Point and Shad Landing	
37.951850 -75.676225	MD/VA boundary, Pocomoke Sound	
37.955327 -75.691653	MD/VA boundary, Pocomoke Sound	
37.954523 -75.704753	MD/VA boundary, Pocomoke Sound	
37.941226 -75.761753	MD/VA boundary, Pocomoke Sound	
37.912169 -75.801148	MD/VA boundary, Pocomoke Sound	
<b>Tangier Sound</b>	<b>TANMH</b>	11
37.792580 -76.032707	3.25 miles west, 0.3 miles north of Tangier Sound Light	
37.781960 -75.873726	1 mile southeast of south tip of Watts Island, just east of quad bound.	
37.846237 -75.786530	0.57 miles west southwest of flashing red light at tip of Guilford Flats	
37.911789 -75.837732	MD/VA boundary, 1.15 miles south of Cow Gap Island	
37.911304 -75.883558	MD/VA boundary, 300 feet north of Green Harbor Island	
37.906718 -75.952630	MD/VA boundary, 2.75 miles west of Clump Island	
37.946050 -75.943628	MD/VA boundary, between Smith and Cedar Islands	
37.953392 -75.993331	MD/VA boundary, 400 feet east of Horse Hammock	
37.953599 -76.052055	MD/VA boundary, 1450 feet west of Hog Neck	
37.941404 -76.083908	MD/VA boundary, 2.25 miles west of Smith Gut Point	
37.797581 -76.025650	3 miles west northwest of Tangier Sound Light	
<b>Western Lower Chesapeake Bay</b>	<b>CB6PH</b>	12
37.084686 -76.271126	900 feet southwest of abandoned lighthouse north northeast of Grand View	
37.087894 -76.268974	400 feet northeast of abandoned lighthouse north northeast of Grand View	
37.083694 -76.165154	6 miles east of Grand View, 10.2 miles west of Fishermans Island	
37.729496 -76.123352	10 miles east of Hughlett Point, approximately 1 mile north of wreck	
37.619465 -76.280251	Fleets Island, at end of road north of Windmill Point	
37.613708 -76.280586	Windmill Point	
37.512447 -76.285423	Gwynn Island, east side of northern end	
37.473808 -76.263008	Gwynn Island, 0.25 miles northeast of Sandy Point tip	
37.462313 -76.257705	0.08 miles north northeast from northern tip of Rigby Island	
37.459854 -76.257225	Rigby Island, east side of northern end	
37.309418 -76.275558	North side of Deep Creek, north of New Point Comfort	
37.105408 -76.283676	East side of Northend Point	
<b>Eastern Lower Chesapeake Bay</b>	<b>CB7PH</b>	11
37.083694 -76.165154	6 miles east of Grand View, 10.2 miles west of Fishermans Island	
37.010635 -75.965233	5 miles south of Fishermans Island, 6.3 miles northeast of Cape Henry	
37.111908 -75.933571	0.68 miles west of Smith Island, 2 miles east of Route 13	
37.115574 -75.970390	300 feet due north of light in channel, 260 feet west of Route 13	
37.787926 -75.741074	South of Webb Island, between Deep Creek and Doe Creek	
37.806152 -75.755272	Scott Island, south side	
37.806671 -75.755676	Scott Island, west side	
37.846237 -75.786530	0.57 miles southwest of flashing red light at tip of Guilford Flats	

Segment Description	Chesapeake Bay Program Segment	Number of Latitude/Longitude Coordinates to Follow
37.781960 -75.873726	1 mile southeast of south tip of Watts Island, just east of quad boundary	
37.792580 -76.032707	3.25 miles west, 0.3 miles north of Tangier Sound Light	
37.729496 -76.123352	10 miles east of Hughlett Point, approximately 1 mile north of wreck	
<b>Mouth of the Chesapeake Bay</b>	<b>CB8PH</b>	10
36.967342 -76.296967	Where I-64 south meets Willoughby Spit	
36.907486 -76.093224	West side of Lesner Bridge (Route 60)	
36.907352 -76.090591	East side of Lesner Bridge (Route 60)	
36.919083 -75.993782	Fort Story, 2000 feet north of North Virginia Beach	
37.010635 -75.965233	5 miles south of Fishermans Island, 6.3 miles northeast of Cape Henry	
37.083694 -76.165154	6 miles east of Grand View, 10.2 miles west of Fishermans Island	
37.087894 -76.268974	400 feet northeast of abandoned lighthouse north northeast of Grand View	
37.084686 -76.271126	900 feet southwest of abandoned lighthouse north northeast of of Grand View	
37.017586 -76.297104	Fort Monroe Military Reservation, west of Thimble Shoal	
37.002299 -76.300643	0.32 miles east northeast of Old Point Comfort lighthouse	
<b>Upper Rappahannock River</b>	<b>RPPTF</b>	3
38.082386 -76.979980	430 feet east of the mouth of Hutchinson Swamp	
38.089813 -76.973442	0.7 miles upstream of Peedee Creek	
38.312946 -77.462326	Fredericksburg, 300 feet above aqueduct	
<b>Middle Rappahannock River</b>	<b>RPPOH</b>	4
37.979389 -76.924652	1000 feet downstream (southeast) of Jenkins Landing	
37.988907 -76.895859	Mulberry Island, 0.33 miles upstream (northwest) of Mulberry Point	
38.089813 -76.973442	0.7 miles upstream of Peedee Creek	
38.082386 -76.979980	430 feet east of the mouth of Hutchinson Swamp	
<b>Lower Rappahannock River</b>	<b>RPPMH</b>	7
37.558598 -76.297974	Stingray Point	
37.558395 -76.283516	0.8 miles east of Stingray Point (point 1)	
37.613708 -76.280586	Windmill Point	
37.653767 -76.457794	0.5 miles northwest of Orchard Point	
37.649799 -76.496513	Approximately 0.25 miles south of Whitehouse Creek mouth	
37.988907 -76.895859	Mulberry Island, 0.33 miles upstream (northwest) of Mulberry Point	
37.979389 -76.924652	1000 feet downstream (southeast) of Jenkins Landing	
<b>Corrotoman River</b>	<b>CRRMH</b>	3
37.649799 -76.496513	Approximately 0.25 miles south of Whitehouse Creek mouth	
37.653767 -76.457794	0.5 miles northwest of Orchard Point	
37.769997 -76.478516	Western Branch, 400 feet upstream of Route 3	
<b>Piankatank River</b>	<b>PIAMH</b>	7
37.473808 -76.263008	Gwynn Island, 0.25 miles northeast of Sandy Point tip	
37.512447 -76.285423	Gwynn Island, east side of northern end	
37.558395 -76.283516	0.8 miles east of Stingray Point (RPPMH point 1)	
37.558598 -76.297974	Stingray Point	
37.577724 -76.583008	Dragon Swamp, 0.5 miles below Zion Branch	
37.459854 -76.257225	Rigby Island, east side of northern end	
37.462313 -76.257705	0.08 miles north northeast from northern tip of Rigby Island	
<b>Upper Mattaponi River</b>	<b>MPNTF</b>	3
37.656723 -76.882187	Across the river from Courthouse Landing	
37.658237 -76.881470	1000 feet upstream of Mitchell Hill Creek	
37.788898 -77.104210	Aylett, 800 feet above Route 360 bridge	

Segment Description	Chesapeake Bay Program Segment	Number of Latitude/ Longitude Coordinates to Follow
<b>Lower Mattaponi River</b>	<b>MPNOH</b>	4
37.538822 -76.791504	Lord Delaware Bridge (Route 33), West Point side	
37.537014 -76.786194	Lord Delaware Bridge (Route 33), east side	
37.658237 -76.881470	1000 feet upstream of Mitchell Hill Creek	
37.656723 -76.882187	Across the river from Courthouse Landing	
<b>Upper Pamunkey River</b>	<b>PMKTF</b>	3
37.543476 -76.976799	0.75 miles upstream of creek at Cook Landing	
37.543507 -76.974968	Cohoke Marsh, 0.9 miles downstream of Turkey Creek	
37.689621 -77.214119	2000 feet upstream of Totopotomoy Creek	
<b>Lower Pamunkey River</b>	<b>PMKOH</b>	4
37.532749 -76.810616	Eltham Bridge (Routes. 30/33), west side	
37.535069 -76.805229	Eltham Bridge (Routes 30/33), east side (West Point)	
37.543507 -76.974968	Cohoke Marsh, 0.9 miles downstream of Turkey Creek	
37.543476 -76.976799	0.75 miles upstream of creek at Cook Landing	
<b>Middle York River</b>	<b>YRKMH</b>	6
37.288246 -76.598122	Naval Supply Center, Cheatham Annex	
37.316483 -76.577034	Blundering Point, 1000 feet northwest of tip	
37.537014 -76.786194	Lord Delaware Bridge (Route 33), east side	
37.538822 -76.791504	Lord Delaware Bridge (Route 33), West Point side	
37.535069 -76.805229	Eltham Bridge (Routes 30/33), east side (West Point)	
37.532749 -76.810616	Eltham Bridge (Routes 30/33), west side	
<b>Lower York River</b>	<b>YRKPH</b>	4
37.223167 -76.420166	Sandbox, northeast tip of Goodwin Neck	
37.262413 -76.390877	Jenkins Neck, between Hog Island and Sandy Point	
37.316483 -76.577034	Blundering Point, 1000 feet northwest of tip	
37.288246 -76.598122	Naval Supply Center, Cheatham Annex	
<b>Mobjack Bay</b>	<b>MOBPH</b>	4
37.105408 -76.283676	East side of Northend Point	
37.309418 -76.275558	North side of Deep Creek, north of New Point Comfort	
37.262413 -76.390877	Jenkins Neck, between Hog Island and Sandy Point	
37.223167 -76.420166	Sandbox, northeast tip of Goodwin Neck	
<b>Upper James River</b>	<b>JMSTF</b>	5
37.227379 -76.946426	0.3 miles downstream of Sloop Point	
37.241180 -76.945686	Tetlington, 500 feet downstream of road to the river	
37.533394 -77.436775	Upstream of Mayos Bridge, as far as Browns Island dam	
37.329826 -77.281128	Mouth of small creek east of Shand Creek and north of light	
37.317638 -77.277275	City Point, Hopewell	
<b>Appomattox River</b>	<b>APPTF</b>	3
37.317638 -77.277275	City Point, Hopewell	
37.329826 -77.281128	Mouth of small creek east of Shand Creek and north of light	
37.233662 -77.407867	Petersburg, 1500 feet upstream of Route 1 bridge	
<b>Middle James River</b>	<b>JMSOH</b>	6
37.154785 -76.670403	0.7 miles north of Hunnicut Creek, south of Hog Island	
37.202007 -76.626305	Near Carters Grove Home, 1.25 miles southeast of Grove Creek	
37.245670 -76.871529	1300 feet north northwest of Barrets Point	
37.245888 -76.897522	During Point	
37.241180 -76.945686	Tetlington, 500 feet downstream of road to the river	
37.227379 -76.946426	0.3 miles downstream of Sloop Point	



Segment Description	Chesapeake Bay Program Segment	Number of Latitude/Longitude Coordinates to Follow
<b>Chickahominy River</b>	<b>CHKOH</b>	3
37.245888 -76.897522	During Point	
37.245670 -76.871529	1300 feet north northwest of Barrets Point	
37.429108 -77.028267	Above Holly Landing, 150 feet below temporary divergence	
<b>Lower James River</b>	<b>JMSMH</b>	4
36.923653 -76.385788	Northwest corner of Craney Island Disposal Area	
36.964985 -76.410645	Newport News Point, just south of Lincoln Park	
37.202007 -76.626305	Near Carters Grove Home, 1.25 miles southeast of Grove Creek	
37.154785 -76.670403	0.7 miles north of Hunnicut Creek, south of Hog Island	
<b>Mouth of James River</b>	<b>JMSPH</b>	7
36.967342 -76.296967	Where I-64 S meets Willoughby Spit	
37.002299 -76.300643	0.32 miles east northeast of Old Point Comfort lighthouse	
37.017586 -76.297104	Fort Monroe Military Reservation, west of Thimble Shoal	
36.964985 -76.410645	Newport News Point, just south of Lincoln Park	
36.923653 -76.385788	Northwest corner of Craney Island Disposal Area	
36.923153 -76.354614	Northeast corner of Craney Island Disposal Area	
36.925476 -76.329292	Northwest side of pond 1950 feet south of Sewells Point Docks	
<b>Western Branch Elizabeth River</b>	<b>WBEMH</b>	3
36.856030 -76.331711	Pinner Point, northwest corner at railroad tracks	
36.860474 -76.341103	Lovett Point, southeast corner	
36.818913 -76.399612	1800 feet south of Hodges Ferry Bridge (Route 337)	
<b>Southern Branch Elizabeth River</b>	<b>SBEMH</b>	3
36.839340 -76.290077	930 feet west of the south end of Berkley Bridge	
36.839539 -76.295753	250 feet south of light and 2500 feet north of Downtown Tunnel	
36.723557 -76.248955	Great Bridge Lock	
<b>Eastern Branch Elizabeth River</b>	<b>EBEMH</b>	3
36.843090 -76.289368	The Waterside	
36.839779 -76.289261	700 feet west of the south end of Berkley Bridge	
36.827354 -76.167595	300 feet downstream of Route 165	
<b>Lafayette River</b>	<b>LAFMH</b>	3
36.903587 -76.323219	Tanners Point	
36.901581 -76.314362	1400 feet due east of light southeast of Tanners Point	
36.865322 -76.257843	Calvary Cemetery, 3400 feet upstream of Route 168	
<b>Mouth to mid-Elizabeth River</b>	<b>ELIPH</b>	10
36.925476 -76.329292	Northwest side of pond 1950 feet south of Sewells Point Docks	
36.923153 -76.354614	Northeast corner of Craney Island Disposal Area	
36.860474 -76.341103	Lovett Point, southeast corner	
36.856030 -76.331711	Pinner Point, northwest corner at railroad tracks	
36.839539 -76.295753	250 feet south of light and 2500 feet north of Downtown Tunnel	
36.839340 -76.290077	930 feet west of the south end of Berkley Bridge	
36.839779 -76.289261	700 feet west of the south end of Berkley Bridge	
36.843090 -76.289368	The Waterside	
36.901581 -76.314362	1400 feet due east of light southeast of Tanners Point	
36.903587 -76.323219	Tanners Point	
<b>Lynnhaven River</b>	<b>LYNPH</b>	2
36.907352 -76.090591	East side of Lesner Bridge (Route 60)	
36.907486 -76.093224	West side of Lesner Bridge (Route 60)	



U.S. Environmental Protection Agency  
Region III  
Chesapeake Bay Program Office  
Annapolis, Maryland  
1-800-YOUR-BAY

*Monitoring and Analysis Subcommittee*  
and  
*Tidal Monitoring and Analysis Workgroup*